

Serial No. 09/535,733

REMARKS:

Claims 3-9, 11-15, 17, 18, and 20-30 are presently pending in the application. Claims 1, 2, 10, 16, and 19 have been cancelled by this amendment. Claims 4, 7-9, 11, 17, and 25 are in independent form.

The drawings have been amended to indicate that Figures 1 and 2 are prior art.

Claims 1-24 were rejected under §102(b) over Person. Claim 4 has been amended to include the limitations of claims 1 and 2. Claim 4 requires that a particular cartographic entity for a cartographic feature is selected based upon an on-road or an off-road mode, which is not disclosed in Person. Specifically, Person does not disclose or suggest an off-road mode. Claim 4 has been further clarified as to the difference between the on- and off-road modes.

Claim 7 has been amended to include the limitations of claims 1 and 2. Claim 7 has been clarified to require that once a predetermined vehicle speed is reached a less detailed cartographic entity is displayed than a more detailed cartographic entity for a second operational mode for the same cartographic feature.

Claim 8 has been amended to include the limitations of claims 1 and 2. A panning mode is not mentioned directly or inferentially in Person. Nonetheless, Applicant has clarified the panning mode in claim 8. However, claim 8 is allowable over the art without the clarification.

Claim 9 has been amended to include the limitations of claims 1 and 2. Person does not disclose the cross-hatching and shading required by claim 9. The portions of Person relied upon by the Examiner, such as the color memory and color generator, is irrelevant to the limitations of claim 9.

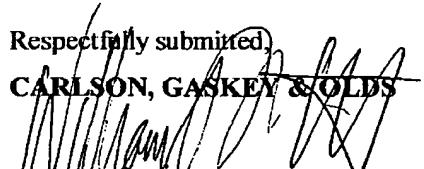
Claim 11 has been amended to include the limitations of claims 1 and 10, and now requires that different cartographic entities for different cartographic features have different intensities, which are displayed simultaneously. Person does not disclose this. Moreover, the limitations of claims 14 and 15 are nowhere disclosed or suggested.

Claim 17 has been amended to include the limitations of claims 16 and 19. Claim 17 is allowable for the same reasons discussed above relative to amended claim 4.

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Claims 25-30 were rejected under §102(b) over Ito. Claim 25 requires that different cartographic entities for different cartographic features have different intensities, which are displayed simultaneously. One of cartographic entities is the focal point of the display. Person does not disclose this. Moreover, the limitations of claims 29 and 30 are nowhere disclosed or suggested.

For the reasons set forth above, Applicant submits that the pending claims in the application are allowable. Applicant respectfully solicits allowance of these claims. If any additional claims fees or extensions of time are required, please charge to Deposit Account No. 50-1482.

Respectfully submitted,

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Marked-up Version of Claims

3. (Amended) The method of claim [2] 4, wherein the less detailed desired cartographic entity is no cartographic entity.

4. (Amended) [The method of claim 2, wherein] A method of selectively displaying cartographic features on a video display of a navigation system, the method comprising the steps of:

a) determining an operational mode of the navigation system, wherein the navigation system includes first and second operational modes with the first operational mode comprises on-road mode in which a vehicle position is displayed relative to a road system and the second operational mode comprises off-road mode in which the vehicle position is displayed irrelative to a road system;

b) selecting a desired cartographic entity for a cartographic feature based upon the operational mode including selecting a less detailed desired cartographic entity for the cartographic feature in the first operational mode and selecting a more detailed desired cartographic entity than the less detailed desired cartographic entity for the same cartographic feature in the second operational mode; and

c) displaying the selected desired cartographic entity on the video display.

7. (Amended) [The method of claim 2, wherein] A method of selectively displaying cartographic features on a video display of a navigation system, the method comprising the steps of:

a) determining an operational mode of the navigation system, wherein the navigation system includes first and second operational modes and the first operational mode is defined by a predetermined vehicle speed;

b) selecting a desired cartographic entity for a cartographic feature based upon reaching the predetermined vehicle speed in the first operational mode including selecting a less detailed desired cartographic entity for the cartographic feature at the predetermined vehicle speed in the first operational mode and selecting a more detailed desired cartographic

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entity than the less detailed desired cartographic entity for the same cartographic feature in the second operational mode; and

- c) displaying the selected desired cartographic entity on the video display.

8. (Amended) [The method of claim 2, wherein] A method of selectively displaying cartographic features on a video display of a navigation system, the method comprising the steps of:

a) determining an operational mode of the navigation system, wherein the navigation system includes first and second operational modes and the first operational mode comprises a panning mode in which a displayed area on the video display is shifted relative to the displayed vehicle location independent of a change in vehicle location;

b) selecting a desired cartographic entity for a cartographic feature based upon the operational mode including selecting a less detailed desired cartographic entity for the cartographic feature in the first operational mode and selecting a more detailed desired cartographic entity than the less detailed desired cartographic entity for the same cartographic feature in the second operational mode; and

- c) displaying the selected desired cartographic entity on the video display.

9. (Amended) [The method of claim 2, wherein] A method of selectively displaying cartographic features on a video display of a navigation system, the method comprising the steps of:

a) determining an operational mode of the navigation system, wherein the navigation system includes first and second operational modes and the less detailed desired cartographic entity is defined by a perimeter with cross-hatching disposed within the perimeter and the more detailed desired cartographic entity is defined by the perimeter with solid shading disposed within the perimeter;

b) selecting a desired cartographic entity for a cartographic feature based upon the operational mode including selecting a less detailed desired cartographic entity for the cartographic feature in the first operational mode and selecting a more detailed desired

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cartographic entity than the less detailed desired cartographic entity for the same cartographic feature in the second operational mode; and

c) displaying the selected desired cartographic entity on the video display.

11. (Amended) [The method of claim 10] A method of selectively displaying cartographic features on a video display of a navigation system, the method comprising the steps of:

- a) determining an operational mode of the navigation system;
- b) selecting a first cartographic entity for a first cartographic feature based upon the operational mode, wherein the [focal] first cartographic entity is a vehicle route having a first intensity, and selecting a second intensity for a second desired cartographic entity for a second cartographic feature [the desired cartographic entity] which is different than the first intensity; and
- c) simultaneously displaying the first and second desired cartographic entities on the video display.

17. (Amended) [The apparatus of claim 16] An apparatus for a navigation system for selectively displaying cartographic features, the apparatus comprising:

at least one position determining device for providing a vehicle location signal;
a database having a map with cartographic features and cartographic entities for representing said cartographic features;
a processor interconnected to said at least one positioning device and said database for determining the location of the vehicle relative to said map;
a video display connected to said processor for displaying an area of said map;
a plurality of operational modes each displaying said map area, wherein said processor determines an operational mode from said plurality of said operational modes and selects a desired cartographic entity for a cartographic feature based upon said operational mode, said processor displaying said selected desired cartographic entity on said video display, wherein said plurality of operational modes includes first and second operational modes, and said processor selects a less detailed desired cartographic entity for said for said cartographic

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feature in said first operational mode and selects a more detailed desired cartographic entity than said less detailed desired cartographic entity for said same cartographic feature in said second operational mode, and wherein said first operational mode comprises on-road mode in which a vehicle position is displayed relative to a road system and said second operational mode comprises off-road mode in which said vehicle position is displayed irrelative to a road system.

25. (Amended) A method of displaying a [road segment] cartographic features on a video display of a navigation system, the method comprising the steps of:

- a) determining an operational mode of the navigation system;
- b) selecting a first desired intensity for a first desired cartographic entity [relative to] defining a focal cartographic entity based upon the operational mode and selecting a second desired intensity for a second desired cartographic entity based upon the operational mode; and
- c) simultaneously displaying the first and second desired cartographic entity on the video display at the desired intensit[ies].

26. (Amended) The method of claim 25, wherein the focal cartographic entity is a vehicle route having an [intensity] vehicle route intensity and step b) includes selecting the desired intensity for the desired cartographic entity which is different than the vehicle route intensity.

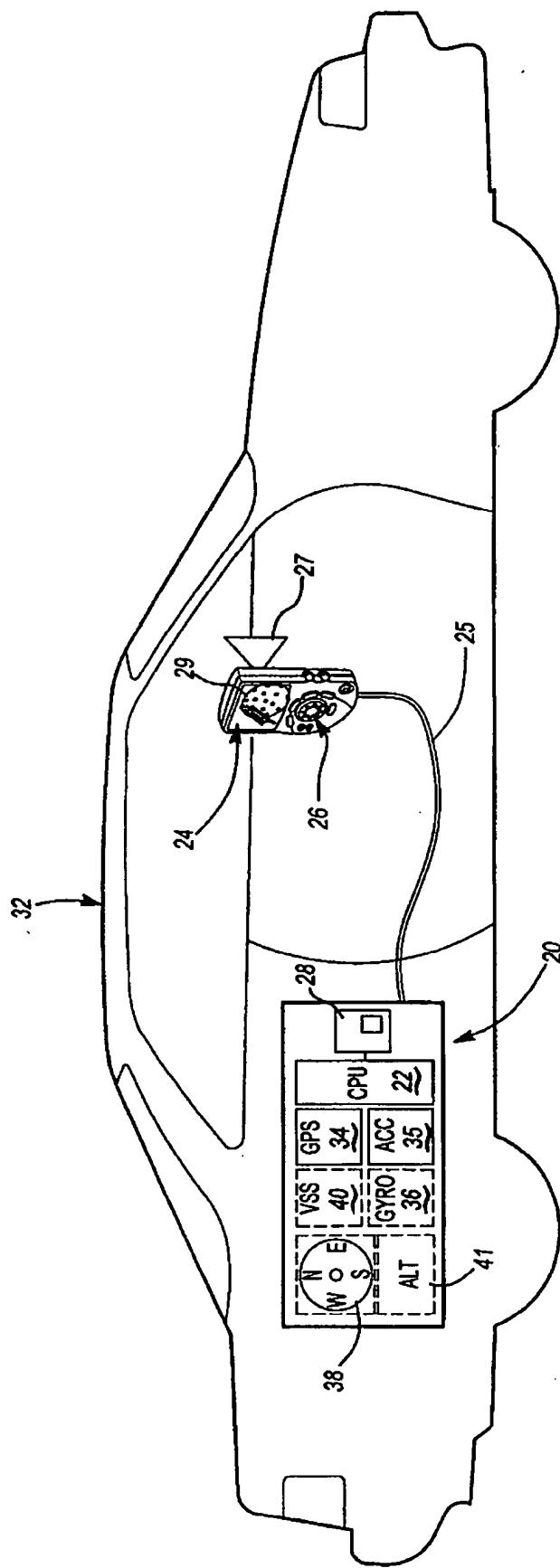


Fig-1
PRIOR ART

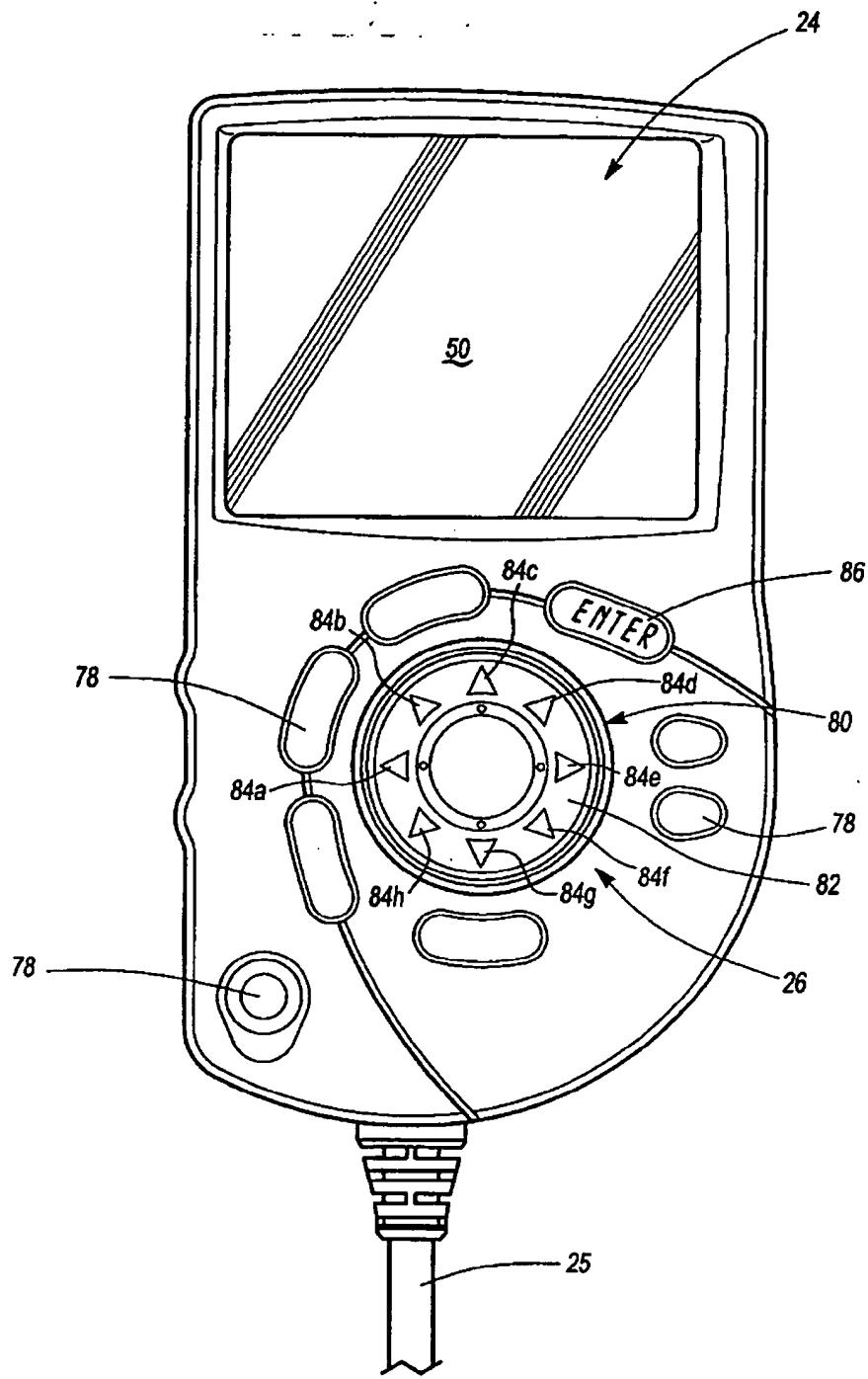


Fig-2
PRIOR ART